

IN THE CLAIMS:

Claims 1-21 (Canceled).

22. A signal transmission system comprising a transmission apparatus and a receiving apparatus, said transmission apparatus comprising:

a multiplexer operable to time division multiplex a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame;

a modulator operable to modulate the data stream to produce a digital modulated signal; and

a transmitter operable to transmit the digital modulated signal;

said receiving apparatus comprising:

a receiver operable to receive the digital modulated signal; and

a demodulator operable to demodulate the received signal modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.

23. A signal transmission apparatus comprising:

a multiplexer operable to time division multiplex a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data

is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame;

a modulator operable to modulate the data stream to produce a digital modulated signal; and
a transmitter operable to transmit the digital modulated signal.

24. A receiving apparatus comprising:

a receiver operable to receive a digital modulated signal,

wherein said received digital modulated signal includes a data stream, data stream has a plurality of frames, each frame of the data stream has a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data, and is time-division-multiplexed in this order, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame; and

a demodulator operable to demodulate the received digital modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.

25. A signal receiving apparatus according to claim 24, further comprising:

a decoder operable to decode the demodulated signal to a video signal.

26. A signal receiving apparatus according to claim 25, further comprising:

an output operable to output the video signal.

27. A signal receiving apparatus according to claim 25, further comprising:

a display operable to display the video signal.

28. A signal transmission and receiving method comprising a transmission method and a receiving method,

said transmission method comprising:

time-division-multiplexing a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame;

modulating the data stream to produce a digital modulated signal; and

transmitting the digital modulated signal;

said receiving method comprising:

receiving the digital modulated signal; and

demodulating the received digital modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.

29. A signal transmission method comprising:

time-division-multiplexing a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data included in each frame in this order, to produce a data stream including a plurality of frames, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame;

modulating the data stream to produce a digital modulated signal; and

transmitting the digital modulated signal.

30. A receiving method comprising:

receiving a digital modulated signal,

wherein said received digital modulated signal includes a data stream, data stream has a plurality of frames, each frame of the data stream has a frame sync data, a first block sync data, a first block data, a second block sync data and a second block data, and is time-division-multiplexed in this order, wherein the first block sync data is located following the frame sync data, the first block data is located following the first block sync data, the second block sync data is located following the first block data, and the second block data is located following the second block sync data, and wherein the frame sync data is used for both synchronization of the frame and identification of the head of the frame; and

demodulating the received digital modulated signal to produce a demodulated signal according to the frame sync data, the first block sync data and second block sync data.